**PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE****Applicant:** M. Cusson, et al.**Paper No.:** 31**Application No.:** 09/294,656**Group Art Unit:** 2172**Filed:** 4/19/99**Examiner:** Colbert**Title:** *Web servers with queryable dynamic caches***Fax:** 703-746-7238

Commissioner for Patents
Alexandria, VA 22313-1450**RECEIVED**
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GROUP 3600**Response to non-final Office action under 35 U.S.C. 111****Summary of the prosecution**

This application received a final Office action 12/2/02, which Applicants timely appealed. In the course of the appeal, Applicants filed a *Supplementary amendment after appeal* on 3/31/03. On 6/14/04, Examiner mailed a non-final Office action which reopened prosecution on the basis of the claims as amended in the *Supplementary amendment* of 3/31/03. In her Office action of 6/14/04, Examiner objected to the Drawing and the Specification because of inconsistencies between the reference numbers used in the Specification and those used in the Drawing and required a Substitute Specification in which the inconsistencies were dealt with. Examiner further rejected all claims under 35 U.S.C. 112, second paragraph, for indefiniteness on the grounds that the claims "are simply functional limitation claims". Finally, Examiner found that there were two inventions claimed in the application, one set forth in the claims of Group 1, including claims 24-35, 53-60, and 84-93, and the other set forth in the claims of Group 2, claims 112-131 and required restriction of the examination to one of the groups.

Applicants are filing a Substitute Specification, are traversing the rejection of the elected claims as being "simply functional limitation claims", and are electing claims 112-131 belonging to Group 2 without traverse.

OID-1198-33-01

The substitute Specification

The changes in the Substitute Specification serve only to bring the reference numbers in the Figures and those used in the Detailed Description into agreement and do not add any new matter. The Substitute Specification is thus being filed under the provisions of 37 C.F.R. 1.125(b). Changes are indicated in the manner set forth in 37 C.F.R. 1.125(c).

In some cases, the difficulties pointed to by Examiner are misunderstandings. These misunderstandings will be clarified in the following:

- Reference number 103 in FIG. 1: Browser 103 in the portion of the figure labeled 101 is a Web client, which is why Client in the portion labeled 117 has the label 103.
- Reference number 243 in FIG. 2: UPDATE XMIT 243 is an abbreviation for the term “Update transmitter 243” in the Specification.
- QE 221 and Query Engine 239: Both are query engines, but QE 221 is in cache database 236 while query engine 239 is in source DB server 237.
- Source database server 237 and source database 241: Source database 241 is a database that is contained in source database server 237, as shown in the figure.
- H/M 311 is the hit/miss signal that is provided from CDB Description manager 303 to query analyzer 313; H/M 319 is the signal that query analyzer 313 provides to query dispatcher 351 and update receiver 321.
- TRIGGER MESSAGES TO QUEUE 414 are messages to message queue 414, as indicated by the label. The arrow itself has no reference number.
- FIG. 5 shows an entry 501; entries are made up of fields; the fields and their names are shown at 503, 505, and 507. Table 305 is the table of entries 501; it is an embodiment of CBD Description 305, which is why it has the reference number 305 in FIG. 5.
- Page numbers “30-5 through 30-11” objected to by Examiner are as they should be. In the document being cited page numbers have the format <chapter number>-<page number>, so “pages 30-5 through 30-11” means pages 5 through 11 of chapter 30.

Traversal of the rejection under 35 U.S.C. 112, second paragraph

In her rejection of claims 112-131 under 35 U.S.C. 112, second paragraph, for indefiniteness on the grounds that the claims "are simply functional limitation claims", Examiner cites from the discussion of functional limitations in MPEP 2173.05(g) (MPEP Rev. 1, Feb. 2003, p. 2100-206). This discussion first defines a functional limitation as "an attempt to define something by what it does, rather than by what it is" and goes on to make it clear that "functional language does not, in and of itself render a claim improper". MPEP 2173.05 further states that "A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used." How it is evaluated and considered depends on whether the issue is indefiniteness under 35 U.S.C. 112, second paragraph, or lack of support under 35 U.S.C. 112, first paragraph. Here, the issue is indefiniteness, both because Examiner makes the rejection in those terms and because the elected claims were rejected for lack of support in Examiner's Office action of 12/2/02 and the rejection was successfully traversed in Applicants' appeal brief of 9/11/03.

How one determines whether the language of a claim is indefinite is set forth in *S3 Incorporated, (now known as SONICBLUE, INC.) v. NVIDIA Corporation*, 259 F.3d 1364, 1367 (Fed. Cir. 2001), following a long line of cases:

The requirement that the claims "particularly point[] out and distinctly claim[]" the invention is met when a person experienced in the field of the invention would understand the scope of the subject matter that is patented when the claim is read in conjunction with the rest of the specification. "If the claims when read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, § 112 demands no more." *Miles Laboratories, Inc. v. Shandon*, 997 F.2d 870, 875, 27 U.S.P.Q.2D (BNA) 1123, 1126 (Fed. Cir. 1993); see also *Union Pacific Resources Co. v. Chesapeake Energy Corp.*, 236 F.3d 684, 692, 57 U.S.P.Q.2D (BNA) 1293, 1297 (Fed. Cir. 2001); *North American Vaccine, Inc. v. American Cyanamid Co.*, F.3d 1571, 1579, 7 F.3d 1571, 28 U.S.P.Q.2D (BNA) 1333, 1339 (Fed. Cir. 1993); *Hybritech, Inc. v. Monoclonal Antibodies*, 802 F.2d 1367, 1385, 231 U.S.P.Q. (BNA) 81, 94--95 (Fed. Cir. 1986).

This test will be applied to elected independent claims, claims 112, 119, 125, and 128 in turn. Independent claim 124 is a Beauregard version of claim 119 and independent claim 131 is a Beauregard version of claim 128.

Beginning with claim 112, the claim reads as follows:

112. Apparatus for responding to a request, the request including one or more specifiers referring to objects belonging to a plurality thereof in a distributed database system that includes a plurality of database systems and the apparatus comprising:

5 a first database system of the plurality; and

a redirector which responds to the request when the request includes a specifier that cannot be interpreted in the first database system by causing the request to be executed at least in part in a second database system of the plurality, the request otherwise being executed in the first database system.

10 To begin with, the only “functional language” in the claim is the language that is used to define the “redirector”. The “functional language” uses the term “request” which is defined in the claim’s preamble, the term “specifier”, which is also defined there, the first database system, which has been previously defined, and the second database system which is defined at this point in the claim. The term “interpreted” is from the verb “interpret”, which is well understood in the computer arts to mean receiving an item with a known definition in a program executing in the system and responding as required by the definition, or in the present case, responding to the object specifier as required by the request that contains the object specifier. Since the terms used in the “functional language” have all been explicitly defined or are well understood in the art and it is perfectly clear as a matter of English grammar how the terms are related to each other, the functional language “reasonably apprise[s] those skilled in the art of the scope of the invention”. Since “[35 U.S.C] 112 demands no more”, there is no basis for Examiner’s rejection of claim 112 under 35 U.S.C. 112, second paragraph.

25 Continuing with claim 118, this is a method claim. By their very nature, method claims “define something [namely the method] by what it does” and for that reason, a rejection for functional language would not seem to be appropriate for a method claim. As for whether claim 119 satisfies the requirement of *Miles Laboratories, Inc. v. Shandon*, 997 F.2d 870, 875 (Fed. Cir. 1993) that “...the claims when read in light of the specification reasonably apprise

those skilled in the art of the scope of the invention” , claim 119 uses the same terms, defined the same way, as claim 112, except that there is no “redirector”; instead, the claim’s method steps set forth the redirection of the request to the second database system. Since the claim’s terms are all clearly defined and their relationships to each other are clearly set forth in the language of the claim, claim 119 satisfies the requirements of 37 C.F.R. 112, second paragraph.

Claim 125 reads as follows:

125. Apparatus for caching copies of objects belonging to a subset of the objects belonging to a first database system that returns an object in response to a request therefor, the request including one or more specifiers referring to the objects and the apparatus comprising:

a second database system that contains the copies; and

a redirector that responds to the request when the request includes a specifier that cannot be interpreted in the second database system by causing the request to be executed at least in part in the first database system, the request otherwise being executed in the second database system.

This claim is addressed to a specific application of the system set forth in claim 112, namely where a second database system is used as a cache for objects belonging to a first database system. The terms “caching” and “copies are well known in computer science and the rest of the terms in the claim are defined as they are in claim 112, except that the roles of the first and second database systems have been reversed. Again, the only “functional language” in the claim is the definition of the “redirector”. As before, the only issue is whether the claim passes muster under 35 U.S.C. 112, second paragraph, and this claim does so for exactly the same reasons that claim 112 does.

Claim 128, finally, is a method claim that bears the same relationship to claim 125 as claim 119 does to claim 112, and the arguments made with regard to claim 119 apply equally to claim 128.

Claim 124 is a Beauregard version of method claim 119 and claim 131 is a Beauregard version of method claim 128. Claims 124 and 131 thus satisfy the requirements of 35 U.S.C. 112,

second paragraph for the same reasons that claims 119 and 128 do. None of the claims dependent from claims 112, 119, 125, or 128 includes anything that could be reasonably construed to be "functional language". The limitations that are added in the dependent claims all employ terms that are either clearly defined in the claim or are well understood in the computer arts and the language of the limitations clearly sets forth how the terms relate to each other. The dependent claims thus satisfy the requirements of 37 C.F.R. 112, second paragraph.

Since all of claims 112-131 satisfy the requirements of 37 C.F.R. 112, second paragraph, Examiner's rejection of these claims for indefiniteness is without foundation.

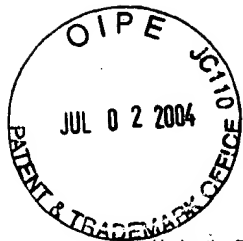
Election of claims 112-131

Applicants hereby cancel claims 24-35, 53-60, 84-93 belonging to Group 1 without prejudice and elect claims 112-131 belonging to Group 2 without traverse for further examination. Cancellation of the claims of Group 1 is not to be construed as a concession that the rejection of those claims as being "simply functional limitation claims" is better founded than the rejection of the claim of group 2 for that reason. Applicants accordingly maintain their right to pursue the claims of group 1 in a divisional application.

Conclusion

Applicants have provided a substitute Specification in which the Drawing and Specification have been amended to overcome Examiner's objections, have traversed Examiner's rejection of all claims under 35 U.S.C. 112, second paragraph, have elected claims 112-131 belonging to Group 2 for further examination and have canceled the claims of Group 1 without prejudice. As Examiner will immediately see, the amendments to the Drawing and the Specification have added no new matter. Applicants have thus been completely responsive to Examiner's non-final Office action of 6/14/04 as required by 37 C.F.R. 1.111(b) and respectfully request that Examiner enter the substitute Specification and allow claims 112-131. No fees are believed to be required for this amendment. Should any be, please charge them to deposit account number 501315.

Respectfully submitted,



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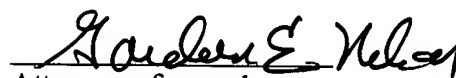
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	Group Art Unit	2172	
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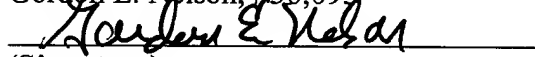
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